

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: torell@sicom.com (Kent Torell)
Subject: [1792] 100,000 miles/watt
Message-ID: <v02130505ad00ca680cec@[192.91.202.41]>

Tried a test in our lab this afternoon (while recovering from the christmas pot-luck). Made a full wave delta loop for 146 MHz (6 feet 11 inches) and connected it to an HP signal generator. Used a Kenwood HT for the receiver (rubber duck antenna). Set the signal generator to 1 KHz internal fm modulation and keyed it on and off with the output switch, sending a beacon type message.....V V de ab7oaWe adjusted the signal generator to where we could just barely hear the signal, holding the squelch open manually. The receiver was 5 feet away from the transmitter antenna.

The transmitter power was -50 dbm, or 1/100 of a microwatt! The distance was 1/1000 of a mile, so our miles per watt beacon reception was 100,000 miles per watt! (groundwave) A little work on the antennas, and we will have a million miles per watt..... :-)

72 from warm and toasty phoenix arizona
ab7oa

Kent Torell torell@sicom.com 602-483-2867
SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: msdoooley@rdxsunhost.aud.alcatel.com (Michael S. Dooley)
Subject: [1745] 20 over 9 noise
Message-ID: <9512220605.AA06253@collie.aud.alcatel.com>

> Here is last nights FOX report. About 30 minutes before "show time", my
> elusive 20 over nine noise returned. This time I had a back up and operations
> moved to W4Q0 here in Atlanta. We used my call and here are the results. I
> continue to look for this \$%^&\$ sporadic noise.

>

> 72,

>

> Ken KJ4XR

Ken (and the list),

I, too, had a noise source at the house that was elusive. I'd sit down to work the fox hunt and there would be this loud noise centered at 7039khz that would all but wipe out the fox hunt. Later in the evening (after all went to bed) I'd go back to the rig to troubleshoot this problem and the noise would be

gone.

Well, one evening my son and I decided to find this problem so I took my trusty shortwave, set it on the frequency of the noise, and started DFing the noise. I soon discovered it was coming from my own house! Further searching found I could receive the noise when the radio was close to ANY AC OUTLET. Why, I could trace AC wiring in the wall just by holding the radio near the wall.

As it was getting late, we started winding down the hunt. Suddenly, the noise disappeared! We went all through the house trying to see what was different and found that the wife had been turning things off in preparation for going to bed. We turned stuff on one at a time and found that the noise was coming from (drum roll please) a light bulb in a lamp in the living room. A lamp that was on during the fox hunt, but off after all went to bed and I returned to hunt the noise (for the last two months!). I changed the bulb and the noise is now gone from 7039khz. So, let this be a lesson... light bulbs do make good rf generators.

Another strange but true story from the Texas countryside.

Mike KE4PC

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: Larry Mull <lmull@teleport.com>
Subject: [1742] 75m SSB QRP net
Message-ID: <199512220423.UAA02115@desiree.teleport.com>

A friend who is not monitoring the QRP-L right now (Ed KI7KW) is interested in finding out about any regular 75 meter SSB QRP gatherings. He has his Cascade up and running and would love to chat with other QRP folk.

Please email any skeds that you know of.

Thanks,
72 es 73, Larry AB7GZ
lmull@teleport.com

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: Aa4xx <aa4xx@nando.net>
Subject: [1756] 80 Meter Net
Message-ID: <Pine.SUN.3.91.951222094714.2333B-1000000@parsifal.nando.net>

Hello Gang,

The North Carolina group invites y'all to drop by and say hello Sunday night (Christmas Eve) at 10 PM EST (0300 Z) on 3560 KHz. This will not be a regular net session, but a laid back "Do drop in" roundtable, with stations coming and going as time permits. We realize that this is a family time. Do drop by if you can, even if it's just to say "Hi and Bye!" :-)

80 meter propagation is much better this week than last...We're hearing New England, VE2's and VE3's, and all call areas east of the Mississippi with good QRP signal strengths.

I'd like to ask anyone who would like to receive periodic info on the NC Group and the 80 Meter net info to send me their email address.

72 and Season's Greetings from chilly North Carolina,

Paul, AA4XX

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "Lau, Zack, KH6CP" <zlau@arrl.org>
Subject: [1787] AA2U's remarkable scores
Message-ID: <30DB07CE@arrl.org>

Has AA2U or anyone else running QRP manage to actually make the top ten scores in a big HF non-QRP contest without the aid of a scoring bonus?

Zack KH6CP/1

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Electronic Design Magazine <dmalinak@CLASS.ORG>
Subject: [1784] Another Cascade lives!
Message-ID: <Pine.SUN.3.91.951222110650.26450A-100000@class.class.org>

Folks: Well, I just can't contain myself. I've QSO'ed my Cascade!!! Even

though my wife and I have a baby on the way (our first), I feel like a father today. Worked WA2THE, Bob, in Spring Hill, FL on 20 meters. Conditions are apparently pretty poor today, but nonetheless, he heard my name and call and that's good enough for me. Another station on frequency in Nebraska heard me as well. Five watts to an R-5 vertical. It's going to be a good Christmas after all!

Happy holidays to all and don't anybody give up on those Cascades. If I can get one on the air, anyone can. Still having a bit of a problem with audio dropout...but at least I know it works from the standpoint of being heard.

72 David N2SMH
Glen Rock, NJ

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: PaulKB8N@aol.com
Subject: [1749] Antenna Tuner FS
Message-ID: <951222064303_96951853@emout04.mail.aol.com>

Gang,

I have a very nice homebrew pi net tuner for sale. It is about the size of an HW-9, has switchable balanced and unbalanced output, and is in an attractive black and silver cabinet. The tuner and balun were optimized for 80-10M and it will cover a wide range of impedances on all bands. It has four adjustable, switchable taps on the coil that allow you to preset your favorite bands. In all modesty, it is a nice piece of work! I'd like to get \$40.00 plus shipping.

I also have a very limited supply of Arco trimmers with shafts that I am willing to share with those with project needs. Please let me know what values you need.

Hope you all have a Merry Christmas and Happy New Year. Special thanks to the folks at Lehigh that make this forum possible! From the Alamo City! 72/3, Paul, KB8N

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Frank G3YCC <frank@yorks.demon.co.uk>
Subject: [1779] Any QRPers on Tenerife?
Message-ID: <o5jLuEAalt2wEw\$2@yorks.demon.co.uk>

Hi. Just wondered if there were any EA8's subscribed, as will be there

soon.

Last year we went and I took my MFJ 9420, SSB rig and had some fun with it. Could only get a quarter wire out due to space restrictions and draped round the balcony of the hotel room, but managed some nice QSOs round Europe. Heard lots of US stations but no QSOs. Nice to work from somewhere different and found it much quieter, less QRM!

73

--

Frank G3YCC

G QRP 042

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995

From: dgf@netcom.com (David Feldman)

Subject: [1789] Anyone converted a MFJ9420 to other than 20M?

Message-ID: <199512222048.MAA17208@netcom18.netcom.com>

Has anyone modified a MFJ9420 onto other band such as 40M?

73 Dave WB0GAZ dgf@netcom.com

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995

From: JessQRP@aol.com

Subject: [1783] Cascade and OHR 400 update, QRP-L content(LONG!)

Message-ID: <951222135812_77603576@emout04.mail.aol.com>

Happy Holidays!

Well, well,

The OHR 400 is on the air! Worked the first time out of the shoot. I took my time with this one and just built as I had time and felt like it. It was not to be a typical male testosterone filled to be conquered project. Total calender time from start to finish with time off to have back surgery was about 2 months. I will stuff a few parts and solder a few, making sure to double check the values and solder joints. The best advice that I can give to new kit builders is to take your time and be patient. If you make sure that you put the right parts in the right holes and do the best job of soldering possible, chances are real good that the rig will work first time. Got the thing wired after finishing the boards and let me tell you, there are a lot of wires in this rig! The chassis is two sided and the receiver board and the oscillator board mount on the top side of the internal chassis and the transmitter board on the bottom, so there is a fair amount of wire between the boards and the chassis. The manual is the best that I have ever used. This is the first OHR kit that I have built other than the watt meter and I was duly impressed. Disk really did his home work on this one. The 400 is not

a simple rig to build. It uses separate resonant circuits for all of the bands. There are not separate band boards and it uses a common IF.

The alignment was pretty involved but very straight forward. I got the thing wired, turned it on and viola and yahoo! Red power light and hiss from the headphones. I think that my palms will always sweat at this point with every kit that I build, no matter how many I do! I tried going through the alignment just using the main station receiver instead of a scope and frequency counter. I judged peak output by using the S meter signal strength and could hear all of the IF adjustments just fine on the Kenwood. Bottom line is that a scope and counter are not needed if you have a good general coverage receiver. I did go back and double check the adjustments with the counter and scope and did not have to change a thing! Power output on all of the bands was much better than expected and I am getting 6 watts max on 20 and 30 meters and 8-9 watts on 40 and 80. With the external power adjustment on the rear panel, this is just fine. Tuned it down to about 5 watts and the world is a better place. Receiver sensitivity is superb. The only small complaint that I have is that with the internal audio filter switched out, there is a small amount of audio hiss in the receiver. The good news is that with the audio filter switched in, the hiss totally disappears and the signal takes about what sounds like a 2 S unit jump. The noise floor drops and the signal jumps. The receiver bandpass is a little tight, about 450 hertz to my ear, but I usually run my rigs tight anyway, that's the way I like it. Center detent on the RIT is right on the button. One thing that I did find is that by using a frequency counter you can get the RIT close, but in order to get it right on the button, a main station receiver and tuning the transmit and receive to zero beat is the best way as the adjustment pot is pretty touchy.

All in all a very fine rig, and with purchasing it during the CQC discount, best bang for the buck in kit building that I have gotten in a long time. Pure pleasure to build and no aftermath fiddling like with the Cascade, but to be fair, the Cascade is a club radio.

As an added note, the Curtis keyer that is built for the radio as an option, does not have the right weighting as specified. He uses a 56k resistor in line with a 500k trim pot, and even with the 500k pot turned all the way down, the dits and dahs still run together. I finally got a 1 k resistor in there for R1 after trying a 10k and then a 5k. It seems to work out just fine. I did get some initial reports of chirp, but after reworking the dit and dah weighting, the "chirp" has disappeared.

All in all a very fine rig with great performance and features. Stations worked so far were 2 in AZ on 80, West and East coast on 40, Florida and West coast and KH6 on 30, and Barbados East and West Coast's on 20. All sig reports were 559 to 599. Antennas used were R 7 vert on 20, 30 meter phased array (half square, just makes me feel better to call it that, HI!) and 80 meter inverted L at 30 feet. Also used the R 7 on 40.

Cascade

The Cascade is still sitting on the shelf. I am still not over my initial frustration with this rig. I am sure that most of the frustration level is personal. I think that it would work just fine if I would take the time to check it out and tweak it up. I have replaced the caps in the 20 meter transmit module with silver mica caps and have installed the 80 meter mod for more power. Current state of affairs is that I still cannot coax more than 1-2 watts out on 20 and it is unstable at that point. I can get 7-8 watts out on 80, but as soon as I snap the lid on, the output develops an unstable carrier and the output goes up to about 9 watts, indicating that the rig becomes unstable near the edge of the power out. If I turn the power down to about 5 watts on 80, then I can put the lid on and all seems fine.

As far as 20 goes, I am at a loss. I did manage to get the output up to about 4 watts at one point by fiddling with the coils turns on the band module and readjusting the BFO, but as soon as I got the output up a little and put the lid on, the power went into the dumper, less than one watt. As far as the quality of the transmitted audio if you ignore the power level, it is superb. And as far as the receiver goes, wonderful again. If I could squeeze about 5 watts out on 20 and stabilize the power out on 80, I would be a happy man. I will either find someone to help me get it going with more patience and knowledge than I have, or I will let someone else assume ownership of the rig. I cannot see letting it sit without getting finished up, or letting someone else get it that will get it working. Too nice a rig to just let sit. Any volunteers for helping get it working? HI! I am not stupid when it comes to radios and electronics, I just have a frustration block with this rig. I am pretty sure that with a good checking over, some minor flaw would be found and the thing would work just fine.

Now, as far as QRP-L goes, it appears that I ruffled a few feathers with one of my recent posts concerning miles per watt. I received what I thought was a private, insulting response to my post. Turns out that this response to me turned up in the digest. I am not sure if this was on purpose or by mistake, but either way it shows a complete lack of courtesy and responsibility. I have extended apologies to individuals if they misread the light hearted, fun poking content of the post. The person that asked the question about miles per watt asked a perfectly valid question and got a ton of semi flippant, non HF responses that did not address the content of the original post at all. I will confess that this bent me a little. The person was a newbie to QRP-L and QRP and I think that he deserved a valid answer before the "fun" messages started. There will always be messages here that are not of interest to everyone. I realize that. I would have hoped that most of the group here had a sense of humor and thicker skins. I will not get into the never ending battle about what is relative here and what is not. I think that it would be great if we could get more content and less un-needed verbiage and quoting. The very nature of the list generates a lot of traffic. This is a good thing, that means that the interest in QRP is high and we all know that QRpers are

the cream of hamming HI!

My apologies to the group. If I have offended anyone, that was not the intent. I will go on record though in saying that the reponse that showed up in the digest was un-called for, rude and un-deserved. I would hope that this person would let it go as a private issue, or just let it drop. 'Nuff said. Sorry about the excess bandwidth, but I had to get that off my chest. I will insure that my posts are concise and too the point so as not to contribute to the QRM on the list.

With tail between legs (but still ticked)
Best 72 for the Holidays and Blessed Christmas
Jess N0TFI
VP CQC

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: mjsilva@ix.netcom.com (michael silva)
Subject: [1802] Choosing a core for RF choke
Message-ID: <199512230232.SAA20571@ix2.ix.netcom.com>

If I wanted to wind my own RF choke rather than use an off-the-shelf device (e.g. for higher current) how would I go about choosing a (toroidal) core? Specifically, looking at ferrite core specs I see the max. frequency for tuned circuits, and a higher frequency for broadband transformers. Is either of these frequencies directly applicable to choke use, and if not, how do I choose a core based on the frequency at which it will be used (the goal being good performance with the fewest turns)? Thanks for any insights.

73,
Mike, KK6GM

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: rbsparks@iAmerica.net (Robert B. Sparks)
Subject: [1790] Explorer II alignment
Message-ID: <199512222104.PAA25981@ns2.iAmerica.net>

Hi folks:

I have arrived at the alignment stage for the 40m Explorer II. Has anyone tried to use the MFJ 259 antenna analyzer for setting the freq at R42, detailed on page 14? I cannot get the counter to work in this application. Apparently the signal level at R42 is too low. I tried jumping R42 to a TTL

buffer gate and also to a Schmitt trigger gate to beef up the signal going to the MFJ unit. Still no luck. Any pointers short of ship it to Dick at OHR would be appreciated. I can afford the \$30, but that isn't the point. Can I just use an amp to enhance the signal, or is there some other mysterious, unidentified and esoteric force at work here?

The kit went together very well, was concise, and very complete. It was clearly a bargain.

Now, if I can get it to work!

Thanks for any ideas!

Bob Sparks AB5ZD.

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: "N100Q Tom R. @ MR01 22-Dec-1995 1241" <randolph@est.ENET.dec.com>
Subject: [1774] FAQ: Where to Buy Parts
Message-ID: <9512221745.AA10883@us4rmc.pko.dec.com>

Ok, QRPers, here it is, the very first edition of the QRP-L Parts FAQ. Send additions, corrections, fan mail, hate mail, etc. to me at:

=====
Tom Randolph N100Q NE-QRP 419 QRP-L 87 ARRL randolph@est.enet.dec.com
=====

(I know there's a bunch of suppliers I don't have in here. If you have addresses and phone numbers for your favorites, send 'em along)

The QRP-L Parts FAQ December, 1995
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This FAQ was written to answer frequently asked questions about where to buy parts. Most of the parts commonly used in QRP gear are covered here. Not covered are the "jelly-bean", common-as-dirt parts, like resistors, unless they're a special case.

Part Type/Where to get 'em	Used For
air-variable capacitors Fair	VF0/VX0 tuning, ant tuning
air trimmer capacitors Mouser	osc trim, tuned ckt trim

mica-compression "Arco" trimmer capacitors Circ Spec, RF Parts	tuned ckt trim
piston trimmer capacitors DigiKey, Mouser	bridge trim, osc trim
ceramic trimmer capacitors Circ Spec, DigiKey, Jameco, Mouser	tuned ckt trim
NP0 capacitors DigiKey, Mouser	osc, filters, tuned ckts
N750 capacitors DigiKey	osc temp compensation
polystyrene capacitors All, Mouser	osc, active filters
silver-mica capacitors All, Circ Spec, Jameco, Mouser, RF Parts	filters, tuned ckts
vernier drives Fair, Mouser (p/n 45KN012 & 556-S50)	slow-motion drive for tuning
toroid cores/ferrite beads Amidon, Circ Spec, Palomar Eng	induct, tuned ckts, filters, chokes, transform
coils/chokes/inductors All, Circ Spec, Fair, Mouser, RF Parts	RF chokes, tuned ckts, induct
magnet wire/enamel wire MCM, Mouser	RF chokes, transform, induct
roller inductors Fair	ant tuners
hot-carrier diodes Circ Spec, MCM	mixers, detectors
tuning/varactor/VVC diodes Circ Spec	osc tuning, tuned ckts
crystals Circ Spec, DigiKey, Jameco, Mouser custom crystals: Int'l Crystal Mfg, Jan Crystal	osc, filters
RF & gen'l purpose transistors All, Circ Spec, DigiKey, Jameco, MCM, Mouser, RF Parts	

ICs/chips

All, Circ Spec, DigiKey, Jameco, MCM, Mouser, RF Parts

Addresses/Phone Numbers

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Most of these will send a free catalog on request. The catalogs make good browsing!

All Electronics Corp. \$10 min
P.O. Box 567
Van Nuys, CA 91408-0567
(800) 826 5432
(818) 781 2653 FAX

Amidon Associates
P.O. Box 956
Torrance, CA 90508
THE source for toroid cores and
ferrites.

Circuit Specialists
P.O. Box 3047
Scottsdale, AZ 85271-3047
(800) 528 1417 (602) 464 2485
(602) 464 5824 FAX

Digi-Key
701 Brooks Ave. South
P.O. Box 677
Theif River Falls, MN 56701-0677
(800) DIGI KEY
(218) 681 3380 FAX

Fair Radio Sales \$10 min
P.O. Box 1105
1016 E.Eureka St.
Lima, OH 45802
(419) 223 2196 (419) 227 6573
(419) 227 1313 FAX
Lots of good military surplus.

International Crystal Manufacturing
P.O. Box 26330
729 West Sheridan
Oklahoma City, OK 73126-0330
(800) 725 1426 (405) 236 3741
(800) 322 9426 FAX (405) 235 1904 FAX
Custom crystal orders.

Jameco
1355 Shoreway Rd.
Belmont, CA 94002-4100
(800) 831 4242 (415) 592 8097
(800) 237 6948 FAX (415) 592 2503 FAX

Jan Crystals
P.O. Box 60017
2341 Crystal Dr.
Fort Myers, FL 33906-6017
(800) JAN XTAL
(813) 936 3750 FAX
Custom crystal orders.

MCM Electronics
650 Congress Park Dr.
Dayton, OH 45459-9955
(800) 543 4330
(513) 434 6959 FAX
Large selection of Japanese "2S"
type transistors, TV/VCR parts.

Mouser Electronics
2401 Hwy 287 North
Mansfield, TX 76063-4827
(800) 34 MOUSE
(201) 328 7120 FAX east
(619) 449 6041 FAX west
(408) 842 7375 FAX northwest
(817) 483 0931 FAX central

Palomar Engineers
P.O. Box 462222
Escondido, CA 92046
(619) 747 3343
(619) 747 3346 FAX
Toroid cores, a few nifty RF
gadgets.

RF Parts \$20 min
435 South Pacific St.
San Marcos, CA 92069
(800) RF PARTS (619) 744 0700
(619) 744 1943 FAX
THE source for obscure RF power
transistors.

Newark Electronics \$25 min	This is a "real distributor" that will take
7500 Viscount Ave.	small orders. They have some things that can't
El Paso, TX 79925-5649	be found easily elsewhere, or they can get
(915) 772 6367	them. They have many sales offices around the
(915) 772 3192 FAX	USA.

Keeper of the QRP-L parts FAQ: Tom Randolph N100Q randolph@est.enet.dec.com

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: cebik@UTKVX.UTCC.UTK.EDU
Subject: [1760] Folded Dipole Notes
Message-ID: <Pine.PMDF.3.91.951222102031.543195710A-100000@utkvx.utk.edu>

Yesterday, wynnt provided some excellent notes on folded dipoles. His advice was uniformly good from my experiences with the antenna. Here are a couple of supplementary notes for those interested in FDs.

1. The FD is broad banded: most of the broad band characteristic arises from the effective equivalent diameter of the antenna. 300-ohm twinlead has an equivalent diameter of about 0.14" or better than 1/8" diameter. This is about twice the diameter of the usual #14 copper wire we use for regular dipoles. Of course, 450-ohm line is even wider. You can use as an imprecise rule of thumb that the effective diameter of a folded dipole is about half the wire spacing.

2. Velocity factor: wynnt notes the fact that shorting a folded dipole at a point equal to its velocity factor times a quarter wavelength outward toward the ends is unnecessary. Extensive modeling and experiments have shown no change in characteristics of the antenna with respect to gain, feedpoint impedance, or SWR-bandwidth. All the short does in models is to provide a very high impedance alternative path for current along the antenna, and so virtually all the current goes to the physical end of the antenna.

The idea seems to have arisen from a misunderstanding of transmission line velocity factor. When a transmission line is used as a transmission line, the field is concentrated between the wires, through the insulation. Hence, the insulation--not being dry air or a vacuum--

changes the VF to a lower figure. Hence, the physical length is shorter than the full electrical length by an amount dependent on the type of insulation. 300-ohm polyvinyl is about .8; 450-ohm line with air gaps is between .9 and .95, true ladder line with quality insulators is closer to bare wire, that is, to 1.0.

Unlike the idea behind shorting the FD at the .8 point, transmission line used as an antenna is simply insulated wire with the field totally surrounding the wire. Antennas using insulated wire will all show a VF, usually in the 1 to 2% range (.98-.99), depending on insulation type and thickness. Using twinlead is no exception. W7EL found that he had to shorten his Field Day Special elements about 1 to 2% from his calculations to account for the twinlead insulation.

Upshot: no need to short the FD anywhere except at the ends. But, as wynnt notes, protect those ends once you have them set, since weather and the chemical soup of our atmosphere will take its toll on any set of connections and exposed wire surfaces.

3. An alternative broadbanded easy antenna: use twinlead or ladder line, but short the wires at the feedpoint. You now have a fat-wire dipole, an easy match for coax, and something fairly sturdy. You can either short the wires at the outer ends, or cut them to slightly different lengths to get a "double hump" resonance on the band of choice. The length will be shorter than the 468/F, which is a generalization for thin-wire antennas. The fat wire effect will shorten the antenna some and the insulation will shorten it some more.

But I never have met a dipole or a shrub that did not need pruning.

Hope this is of some use to winter emergency antenna builders after the beams get covered with ice and fall to earth.

Happy holiday building.

-73-

LB, W4RNL

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "Reich, Christopher N" <cnr@rfpo2.rfc.comm.harris.com>
Subject: [1769] folded dipole query
Message-ID: <30DAE087@smtpgate.rfc.comm.harris.com>

Does anyone have any experience or thoughts using a non-resonant folded

dipole with an antenna tuner for multi-band operation? I can't help but wonder if the broad-banded characteristics of a resonant folded dipole will make the antenna tuner adjustments less "touchy".

Chris Reich WB2DYJ

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: PaulKB8N@aol.com
Subject: [1750] Fwd: Antenna Tuner Sold
Message-ID: <951222074622_96966956@emout06.mail.aol.com>

Forwarded message:
Subj: Re: Antenna Tuner Sold
From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: BWHITTEM@mailgw.sanders.lockheed.com
Subject: [1763] happy holidays
Message-ID: <0dad2f70@mailgw.sanders.lockheed.com>

happy holidays to all of you. ill try to get on the air over
the seasons (work shutdown)
73 72 etc.
barry whittemore
wb1edi
qrp-1 #51 ne qrp #431

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Frank G3YCC <frank@yorks.demon.co.uk>
Subject: [1777] Help
Message-ID: <WpHEqBALat2wEwY8@yorks.demon.co.uk>

Hi and thanks for reading this. Is there a way of finding a list of those subscribed to this list? It would be a useful to check when working other QRPers.

Worked W1HT Ralph in Boston on 14060 today at 1554 GMT, my RST 449 on my mini-dipole, Ralph not on QRP.

72/3 and don't forget the G QRP Winter Sports.

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Frank G3YCC

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995

From: af389@lafn.org (David Shalita)
Subject: [1757] HF Transciever as Test Equipment.
Message-ID: <199512221453.AA05520@lafn.org>

A while ago, a thread was going where it was mentioned "... that an HF Transceiver was also a most valuable piece of Test Equipment for homebrewing. The receiver section had to provide continous coverage from BC to 10 meters or higher to serve both as HF usable and as test equipment."

I have considered buying a scanning receivier (R-7100) but think the money is better spent purchasing a HF Transceiver to be able to do same HAM radio as well. My Drake T4X and R4B only cover 500 khz segments of the band. Very inconvenient for test equipment function.

I am seriously considering buying a good used HF Transceiver for both purposes, HAM QRP and Test Equipment. What does ICOM or Kenwood, or ? make that has worked well for you folks? A few suggested model numbers will be very helpful.

Happy Holidays,
Dave, W6MIK

--
af389@lafn.org
Dave Shalita,

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: mack@mails.imed.com
Subject: [1762] How many Techs/Novices
Message-ID: <9511228196.AA819653762@mails.imed.com>

Hey Jim:

Is there any reason to change how I'm subscribed so my call data is in the list? Add me in as a Tech+ (the FCC has the data wrong. with a WD5 call there is no way to be anything BUT a tech+. I hope to have it be moot by early spring. Advanced here I come!)

Ray Mack
WD5IFS
mack@mails.imed.com

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: aa7qy@primenet.com (Roger Hightower)
Subject: [1785] Logo - Decals, Tee-shirts
Message-ID: <199512221920.MAA24499@usr4.primenet.com>

I have received a firm quote from Jim at Old West Graphics for the decals and tee-shirts. Pricing followss:

1.25" decals, black ink on white (in case your rig is black
or a dark color) 0.25 each

4" window decal (specify whether inside or outside mount),
white on clear background - \$3.25 ea

5" iron-on transfer (black) - \$3.90 ea

Tee-shirt with logo - \$16.95 ea (Black logo on white tee-shirt)

I will take care of the setup charge, and you can order any of these items after January 2, 1996. Mail check with order or order C.O.D. (\$4.50 charge for C.O.D.) Shipping is included in price.

Be sure you tell them Internet QRP Club.

Old West Graphics
749 S. Lemay, Ste A3-355
Fort Collins, CO 80524-3251

1-800-579-1184

72/73 es Merry Christmas

Roger, AA7QY

--

Roger Hightower, AA7QY Mesa, AZ (DM43CJ) aa7qy@primenet.com
QRP-L #62 NE-QRP 383 NorCal 1099 CQC 176 QRP-ARCI 8946 G-QRP 9081

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: k7yha@ix.netcom.com (Richard H. Arland)
Subject: [1743] Merry Xmas
Message-ID: <199512220509.VAA16389@ix12.ix.netcom.com>

I'd like to take this opportunity to wish all the gang on this list a very Merry Christmas and most Prosperous and Happy New Year.

Thanks to all of you who supported my book selling efforts. I hope you enjoyed reading the books as much as I enjoyed writing them.

72/73 rich

PS: According to my sources at League HQ, my article on QRP Contesting should be published in either the Feb or Mar. If you ever had any doubts about Randy Rand's (AA2U) abilities as a contester and DXer, just look at the photo (in the article) that shows his antenna farm.

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Brien Pepperdine <pepperb@gov.on.ca>
Subject: [1753] Misc and Merry Xmas
Message-ID: <Pine.OSF.3.90.951222083756.22423B-100000@govonca2.gov.on.ca>

Just a few jottings... the NCS of our weekly qrp net up here for the Durham Region QRP Club (3535 @ 8 pm EST, Wednesday) has been using a HW-8 for the past few weeks. The band is such that it is very long and the local club stations have a lot of competition and whatnot. Nonetheless, direct conversion and all the HW-8 is heard just as well and hears about as well as the rest of the rigs around the net's club checkins. So, do what you can with what you've got, since propagation, band noise and activity are filtering the equations of all the rigs' performances.

IN that vein, purity and all that being recognized, I stuck the DSP and SCAF filters on the HW-8 last night, and it does seem to make a new radio. I found the same with the Argonaut 509 - I'd been quite happily using it with the external #208 cw filter (audio, op-amp), but adding in the SCAF or the DSP does make for some degree of increased performance to my ear. Now, I won't generally be taking the SCAF or DSP camping or to a lot of places I might do qrp portable, since the #208 filter, or the Original MFJ CWF do a good job as well; but for some long winter nights of qrp radio at home between now and when the ice leaves the lakes here, I'll throw whatever hardware I have and can use into the audio chain. BTW, works for qro BA radio too - both the Mohawk and the HQ170A benefit from the extra filtering. Golden Ear audio it might not be, but if it gets the stuff I don't want to hear out, fine by me.

Happy holidays, safe travels and good 72 to all.

Brien

VE3VAW
Toronto

pepperb@gov.on.ca

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: cebik@UTKVBX.UTCC.UTK.EDU
Subject: [1801] more on folded dipoles (long: delete now if not interested)
Message-ID: <Pine.PMDF.3.91.951222204843.539070899B-100000@utkvx.utk.edu>

A couple of questions have been sent me about folded dipoles. For those interested, here are some notes (that do not pretend to be complete answers). The notes are a bit long, so if not interested, please delete before reading further.

1. Would a folded dipole be a good all-band antenna via an ATU? Probably no better than a single wire antenna of the same length. A folded dipole is broadbanded at its resonant frequency due to its larger effective diameter. However, the situation that creates critical tuning at an ATU is the resistive and reactive components of the impedance presented by the transmission line at the connection with the ATU. Folded dipoles are no more or less likely than single-wire antennas to present problematic values to the ATU. Although the exact values presented also depend on line length, which varies from one installation to another, the values at the antenna end of the line are rough indicators of the potential for values requiring critical tuning. Roughly, values of $R < 1/6$ or > 6 times the transmission line characteristic impedance (Z_0) are candidates, as are values of X 3 to 4 times greater than the value of R . (These are rules of thumb, full of holes made by the other 4 fingers on Murphy's hand.)

I modeled a 7 MHz dipole and folded dipole in the ham bands 40 and up to 10 meters. You can compare the feedpoint impedances (very rounded) to various parallel transmission lines to see that each type of antenna presents its own potential problems. ("Potential" because the length of line you use just might be right for an easy match with your type of ATU network.)

Band	Dipole	Folded dipole
40	73 +/- j0	257 + j6
30	510 + j86	1100 + j2500
20	4100 + j2200	140 - j1300
17	110 - j600	12 - j260
15	109 + j128	37 + j131
12	970 + j300	110 + j10
10	420 - j1100	3800 - j3900

Note that with either antenna, there are some very easy to match

conditions and some not so easy ones. Not so easy does not mean impossible; just a bit finicky on tuning.

2. Why does a folded dipole not work like a transmission line? The current on a single wire dipole is highest at the center and decrease toward the ends. At equal distance from center on either side, the current is the same. Voltage is least at the antenna center and increases to be maximum at the ends. The fed wire of a folded dipole has the same conditions, except that the current never goes to zero (as it does in a single wire resonant dipole). It turns the corner at about 0.3 times the current at the feedpoint.

The second wire of the folded dipole shows values of current quite close to those on the fed wire. Don't they cancel in just the way they do in a transmission line? They would if they had the same phase angle but opposite direction as (otherwise put, were 180-degrees out of phase with) those in the fed wire. The sum of the two phase angles for corresponding points on the two wires yields a pattern of phase shift quite similar to that on a single wire dipole. And this means that there is always current being used to create the electro-magnetic field for radiation (or conversion of electrical energy into electro-magnetic energy). The basic difference is this: in a transmission line, measuring the current on either wire of the line will yield the same amplitude and phase angle. In a folded dipole, measuring the current on each wire won't. The line is unbalanced, and radiation results--and in a pattern virtually indistinguishable from that of a single wire dipole.

You can confirm these notes by using MININEC or NEC to model both dipoles and folded dipoles. Both programs provide tables of currents and phase angles. It is even possible to physically model a parallel line to a resistive or complex load. The model need not be accurate in terms of exact length required to do a certain job; but it will show the pattern of current and phase angle, which may help you clarify thinking about antennas and transmission lines.

I hope this has helped those who posed the questions. The notes are too brief to be complete answers, but probably too long for good e-mail protocol.

Happy holidays and good vacation antenna building.

-73-

LB, W4RNL

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Nick Franco <kf2ph@bnl.gov>
Subject: [1758] Pixie2 - Nite Stories
Message-ID: <9512221454.AA04168@bnlux1.bnl.gov.bnl.gov>

Hello Group,

I got inspired last night to play around with a freshly build Pixie2. I still have a couple of half finished versions laying around. I used these little guys for a project for the Boy Scout Merit Badge soldering requirement. We set the boys up with the schematic (al la Chuck), a bag of parts and a Radio Shack general purpose board and some wire to join everything together. Two of my sons were in on the project, so I now have about 4 Pixie2's (not a bad scheme).

In an attempt to get some sidetone into the critter, I removed the diode and finished up some of the soldering to try this rig out on the air. I have two crystals 3.579 and 3.686 on a switch. I also put a var. cap. in series with the crystal to bend it a little. I tried everything I could think of to get some sidetone into the receiver (I don't know enough yet to think to realistically). I called CQ with a straight key on the 3.686 crystal and AA1HO - Art came right back to me. Not bad! My first QSO with this little guy and I have a 1/2 hour chat with Mass. (I love this stuff). After signing because of cramps in my arm from the straight key, I start to reflect on a couple of things. Why is it that every contact I've made on a Pixie2, the guy's pitch is so low I can hardly hear it. Doesn't this thing have an offset built into the design?? Can someone tell me and if not how can I fix that? If I tune up or down a little so the other stn. is more readable, he recenters on me and I'm back to straining to hear. It's like listening to real low bass tones. However, I have gotten excellent reports back on my signal quality and stability.

After disconnecting my straight key and putting my Heathkit keyer on the Pixie2, I suddenly had the sidetone I was looking for, along with some loud clicking. What made the difference? I measured the output plug from the keyer and found almost .5 vdc when I keyed down. Does injecting 1/2 vdc into the Pixie2 key circuit cause whatever it takes to yield a sidetone? Am I also destroying the rig?? What are your thoughts?

I measure (inaccurately) the output of the Pixie2. On my 9vdc battery I was putting out about 1/2 watt or maybe a little more 3/4 watt. This is how I worked the Mass. station. I used my Icom receiver with no antenna to hear a sidetone from my sig. I then hooked up a 12vdc gel cell (21 AH job). I was then putting out 1 watt maybe a little more. Hope the little feller can handle that much.

I'm trying to use this little inexpensive project to learn more about this mystical electronics stuff. I always welcome and eagerly read all your

responses (boy did I set myself up on that line). Thanks in advance and a very Happy Holiday season to you all.

72,
Nick

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Nicholas J. Franco      |\\|      _____ Brookhaven National Laboratory
Sr. Systems Specialist .___.. \   /\   / Building 1005      Room 201
Tel: (516) 344-5467     \_   /___/ \ / UPTON, N.Y.      11973-5000
Fax: (516) 344-3674     _/QRP-L#13_/
Email: kf2ph@bnl.gov    /___/___/      Ham Call: KF2PH      NE-QRP#349

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From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: teixeira@ccnet.com (T E I X E I R A)
Subject: [1744] QRP Kit
Message-ID: <v01520d01acff7eae6a93@[206.80.40.58]>

What would be a good starter QRP kit to build?

Don N6FNL

"Practice not-doing,

and everything will fall into place."

.....Lao-tzu

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: ae4ic@nr.infi.net (BOB KELLOGG)
Subject: [1788] QRP Kits
Message-ID: <199512222030.PAA19410@moe.infi.net>

Gang,

As an update on the group kit project, I received some messages after posting my original summary. Three people were interested in a small transmitter some thing like I described. I'll work with them individually to see what we can come up with. If we settle on a project, I'll let everyone know.

There were more ideas, too.

11. Gel Cell charger
12. BAYCOM tnc -- a cheap way into packet. - QRP!
13. 160 Meter transmitter-receiver-xceiver

At this point, I think our approach will be to select a project, determine costs, difficulty and other details, then present it to the group to "see if the dogs will eat it" (marketing)

73,

Bob Kellogg, AE4IC
Prolably, but not nececelery. - Benny Hill

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: [1775] QRP SKN Nite, Dec. 31
Message-ID: <199512221756.KAA01627@zia.aoc.nrao.edu>

Gang,

The annual ARRL STRAIGHT KEY NIGHT (SKN) is coming up this Dec. 31. It is held every year for as long as I can remember every New Years Eve. It is a heck of a bunch of fun.

I PROPOSE A QRP SKN to run in conjunction with the ARRL SKN. Let's get on the air New Years Eve and have an extended "fox hunt" to see how many fellow QRP-Lers we might find. If not, there will be plenty of hams to have a nice QSO with.

SKN is NOT a contest; it is to encourage good old fashioned QSO's using good old fashioned straight keys. Many of the hams doing SKN are NOT seasoned CW ops and use SKN as an excuse to do CW once a year. As a result, many of the QSO's are in the 8-13 wpm range. You will hear some rusty CW and you will hear some really sweet CW from some "masters" on a straight key. This is an IDEAL opportunity to get on the air and have some really great, high quality QSO's REGARDLESS of your CW skills.

You will find some truly interesting hams on SKN; alot of really old timers get on with some great stories; old ship-to-shore operators; some old timers get on with totally classic equipment as well. Of course everyone talks about what straight key they are using, where they got it, how old it is, etc. Some stories might even be lies! (Hams wouldn't do that would they?) ... but good QSO's none-the-less.

If you submit your SKN log to the ARRL, you get a neat certificate. You are supposed to nominate 1) the best sounding "fist" you heard/worked, and 2) the most interesting QSO you had. That tells you right there what the emphasis is all about ... the quality of the QSO's, not number of them.

SKN runs from Dec. 31 UTC from 0000 to 2359 UTC. Here in New Mexico, that is New Years Eve 5pm to 5pm on New Years Day. The bulk of the activity is New Year's Eve from about dinner time until the wee hours. You will hear "CQ SKN" for stations wanting an SKN QSO. So let's dust off our straight keys and hang-out at the usual places. But don't limit yourself to the QRP freqs., there will be activity all over the CW part of the band.

I will be on for SKN. Last year I worked almost solid from 8pm until 4am and had 30 some QSO's; couldn't use my right hand for two days following, but had a blast. I have never done it QRP, but will this year.

So if you plan on being on for SKN, let the group know so we can look for you. If you have anyother ideas for the QRP/QRP-L aspect, let me know or post to the group. Then we can all post our logs or results, just like a fox report, and drive the other half of the QRP-L subscribers crazy. I'd be willing to make a QRP SKN certificate if there is interest. An SASE oughta to do it. I'll QSL all my QSO's 100% anyway.

So for those of you wanting some slow speed CW practice and experience with actual QSO's, this is ideal. Everyone's rusty and very accomodating of code speed. (Besides, only the best can push a straight key much above 20 wpm). But it's fun for everyone. And it's gotta be more fun than watching Dick Clark dropping the old ball. (You know, there's something wrong with a guy whose looks haven't changed since "American Bandstand"!)

72, es CU on SKN,

Paul NA5N
QRP-L #38 CQC #133 VISA PIN# 4212

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: af852@rgfn.epcc.Edu (William R Colbert)
Subject: [1771] QRPp
Message-ID: <9512221633.AA10797@rgfn.epcc.Edu>

Has there been any deliveries made in the past few days? Just curious. Ray

--

Ray, W5XE, El Paso, Tx/V31XE, Banana Bank, Belize
QRP-ARCI, MI-QRP, NW-QRP, G-QRP, NORCAL QRP, QRP-L
af852@rgfn.epcc.edu

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: burdick@interval.com (Wayne Burdick)
Subject: [1794] Sierras on the way; request for feedback
Message-ID: <v02130504ad00d3ba89d6@[199.170.106.28]>

Hi all,

Bob Dyer tells me that he has shipped about the first 30 or so Sierra kits, and that more will go out next week. (That's one huge effort for Bob, one major milestone for Wilderness Radio. And no small amount of bleary-eyed tech writing at 3AM for me to get the manual finished!)

As with all new products, Wilderness seeks feedback on the design, the kit, and the manual. Please send your comments about the design or the manual to me via e-mail or phone (415-592-2700). If you find a kit problem, please call or write to the Voice of the Wilderness, himself (i.e., Bob).

Thanks especially to those who ordered a Sierra early. This really helped kick-start the project. Kits will of course be shipped in the order that orders were received.

73,
Wayne

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: RICHQRP@aol.com
Subject: [1797] SKN
Message-ID: <951222185304_97423423@emout04.mail.aol.com>

Been off the air for about 12 years now and will be there with my old piece of brass.. Don't know right now at what freq I will be on but, will wait to see where others on the qrp-1 net list there's. See Ya!!!

rich...WD6FDD

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: walworth@ICSI.Net (Bob Walworth)
Subject: [1798] St. Louis Tuner
Message-ID: <9512230045.AA16770@ICSI.Net>

In answer to a few questions:

I had a nice chat with Jim Cates, WA6GER and found out the following:

NORCAL (Jim) is taking orders now for the tuner. Cost is \$75.00 + \$5.00 S/H. They are having air variable caps manufactured to specs, and that raised the price. The tuner will be housed in the Sierra case only due to cost. Units will ship whenever the caps come in.

Hope this helps, my orders in the mail

Vry 73 es Happy Holidays
de
Bob/AK5B
Bob Walworth
AK5B
Spring TX

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>
Subject: [1800] TenTec 670 "century keyer" FS - gone!
Message-ID: <9896.819682978@safety.ics.uci.edu>

Went fast. Thanks for all the inquiries.

Clark
WA3JPG

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Scott Rosenfeld NF3I <ham@w3eax.umd.edu>
Subject: [1772] Using an HF rig as test gear - more
Message-ID: <Pine.3.89.9512221255.C3681-0100000@w3eax.umd.edu>

I did some heavy-duty playing around with my OMNI V last year, using as test equipment an IC-735 and a freq. counter with 1 Hz resolution. How?

It was time to calibrate the OMNI V. The V uses PIN-diode-switched capacitors to generate offset frequencies when one transmits, changes mode, etc., pulling the crystal oscillator. I also wanted to listen to the input of the 9 MHz IF mixer.

I tuned the 735 to 9.000 MHz and took a piece of coax with a 1/4" piece of the center conductor showing and simply put it in the vicinity of the IF strip and voila! There it was! No hiss - it was coming from the later IF amps or the audio stage.

Now, as far as verifying the offset frequencies, I'd just put the "sniffer probe" in the vicinity of the mixer and change mode, key up/down, or whatever I had to do to generate the frequency. I'd listen in CW mode. How does this work? The 735 only reads 100 Hz resolution!

- 1) Take the audio output of the 735 and feed it into a counter that goes down to 1 Hz. An old Heathkit was used here.
- 2) Turn all equipment on and let it sit for at least 30 minutes.
- 3) Tune to WWV on 10.000000 MHz or whatever's coming through best (10 MHz is best because 9 and 10 MHz are close, I'd say) and put the radio in CW mode.
- 4) Read the audio frequency coming out. Write it down. This combo of frequency error and CW offset tuning is your reference point.
- 5) Tune to the 9 MHz IF and measure what you want to measure, remembering your reference point. Make changes as required.
- 6) Double-check WWV to see if you drifted. Repeat as necessary.
- 7) Voila'! Accuracy of 1 Hz using just another radio and an AF counter!

Scott Rosenfeld NF3I Burtonsville, MD FM19 QRV 40-10/6/2/440
** Yes, you CAN do VHF contests with 25W and omni antennas **
Still stuck at 138 countries confirmed on HF w/dipoles...
72 & 73 from suburban DC 301-549-1022 (h) 301-982-1015 (w)

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [1770] Variable Tuning Range GM-30
Message-ID: <199512221617.QAA24519@chuck.dallas.sgi.com>

Gang,

In the process of getting the GM-30 (Green Mountain 30M xcvr from Small Wonder Labs (SWL)) aligned and on the air I measured the tuning range about 65KHz or so. I haven't measured the tuning range on the 20M critter yet, but I think Dave says in previous postings and the article in the 72 newsletter from the NE QRP Club that it is around 100KHz.

I measured the drift and then stuck it in the case that I made up for it. I played with it and then came up with what I thought/think is an original idea. I get one of these about once a decade or so.

I know that Dave and other mfg'ers are beat on by people who have just gotta be able to tune as much of the spectrum as they can. I myself know from my previous operating habits and logs that I don't move more than 25KHz or so. I also prefer a finer tuning rate on the dial.

I took a voltmeter and a frequency counter and I plotted the voltage vs. frequency just to see how linear the relationship was. I can tell you it was very linear. I was impressed. I was not impressed with the radio shack "linear" audio pot in that for the first 15 degrees or so the R value doesn't change. I'd like to hear of others experiences with this. I don't see that this of any use to anyone (the movement without freq changes) at any time.

So I'm looking at the resulting graph and then it came upon me. If I reduce the voltage limit then I reduce the tuning range. Hey, this stuff is simple. The voltage range is reduced by

putting a 150K resistor in series at the pot with the high side (non-zero voltage) on the pot. This reduces the tuning range.

To further the functionality, I put a switch in parallel with this added resistor. With the switch open I have the narrow range (about 25KHz) and with the switch closed, thus shorting out the resistor, I have the extended tuning range, just in case there might be someone between 10.100-10.150MHz and for most of my listening pleasure I have the 10.100-10.125MHz range at the flip of a switch. All you gotta do is mark two ranges around the tuning knob.

The only thing that I need to check is the effect on the RIT, which I don't and haven't used yet. When I tune a station in I'm within a hundred hertz anyway and I haven't had anyone move on me. I don't have to live and/or die with the RIT. On the OHR rigs and others that have RIT I haven't moved 'em since I first fired 'em up. That doesn't mean that others don't need them it's just something that I don't need. The above mod to effect the tuning range may have an effect on the RIT circuit. If it's important to you, i.e. you have one of these critters, let me know and I'll check it out. Will anyway but probably won't post to the group.

FYI es dit dit

--

Chuck Adams (K5FO CP-60) adams@sgi.com
Box 181150, Dallas, TX 75218-8150

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: burdick@interval.com (Wayne Burdick)
Subject: [1803] Vitamin V: Voltage!
Message-ID: <199512230302.TAA18378@interval.interval.com>

[My apologies in advance for the "article" tone I used in this e-mail. I use this voice when I'm hoping Doug will put my e-mail into the next QRPP. :)]

Years of looking at schematics with 12 volt supply requirements have led some of us to think of 12 volts as THE correct voltage level for QRP transmitters and transceivers. This IS a very common battery voltage. But more of this Vitamin V -- voltage -- may be just the nutrient your QRP transmitter needs. And varying the supply voltage is an often overlooked way to vary the power output while keeping the final amp's collector

impedance and operating efficiency relatively constant.

Testing the Effects of Supply Voltage

To get an accurate picture of what happens when you vary the supply voltage, I tested a Sierra transceiver over the range of 10 to 17 volts. I chose 30 meters for the test, since that band is near the center of the Sierra's operating range. I measured the supply voltage and current drain at the input DC jack, and used a scope to accurately measure the power output into a 50 ohm dummy load.

Here are the numeric test results:

Supply voltage (V)	Power output (W)	Final amp efficiency (%)	Collector impedance (ohms)
-----	-----	-----	-----
10	1.1	65	45
11	1.3	65	46.5
12	1.6	64	45
13	1.8	62	47
14	2.0	63	49
15	2.3	62	49
16	2.5	63	51
17	2.7	60	53

Looking at these measurements, you can see that by simply varying the supply voltage, the Sierra can put out from 1.1 to 2.7 watts, with very little effect on the performance of the final amplifier. No other changes or tweaks were made.

If I had kept the supply voltage constant instead, then varied the drive level to the final amplifier, the collector impedance and efficiency would have been all over the map! You can see this from the formula below. If V_{cc} is kept constant, then Z_{out} will change in proportion to the power output level. When you change V_{cc} with the drive constant, power output increases (exponentially), resulting in a fairly constant value of Z_{out} .

$$Z_{out} = V_{cc}^2 / (2 * \text{power output})$$

Varying the voltage is a clean, simple, no-modifications way to change the power output. There's no need to switch to transformer coupling from the power amp to the low-pass filter, or to try to increase the drive level.

If you use your rig both at home and in the field, changing the supply voltage is a real win. You can use a higher voltage at home--either from a DC power supply or from three, 6-volt batteries (18V)--and use a 12 to 14V battery in the field, where the reduced voltage will reduce current drain

and increase battery life.

Other Considerations

Just to be sure that these results apply across all bands, I repeated the tests on 80 and 15 meters. On 15 meters, the power went from 1.4 watts at 12V to 2.4 watts at 17V. On 80 meters, the power went from 2.4 watts at 12V to over 4 watts at 17V. Since the 2N3553 is rated for use with up to a 28-volt supply, chances are you could get even more power output, limited by the maximum allowable device dissipation and the size of your heatsink. At over 18 volts, I'd recommend a beefier transistor.

Note that the Sierra is designed to put out about 2 watts average (over all bands) with a 13.8V supply. As shown above, at 14V the collector impedance is very close to 50 ohms, and output is around 2 watts. At the extremes of 1.1 and 2.7 watts, the impedance is still so close to 50 ohms that the effect on the spectral performance is very slight. (In the case of the Sierra, impedance is a bit lower on 80 meters and a bit higher on 15 meters, a consequence of the relatively uncomplicated broad-band design.)

An important thing to keep in mind is that the Sierra has an 8V regulator for all low-level circuitry. Varying the supply voltage over the 10 to 17V range has a completely negligible effect on receiver performance or on VFO stability. Not all rigs have a voltage regulator, so be careful when applying higher voltages to your rig.

Conclusion

You may have a vitamin V deficiency. Consider taking a supplement next time you want to boost power output a bit!

Wayne Burdick
N6KR

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: kreinbd@ccgate.dl.nec.com (David Kreinberg)
Subject: [1752] Re: 20 over 9 noise
Message-ID: <9511228196.AA819642399@smtpgw.ccgate.dl.nec.com>

I changed the bulb and the noise is now gone from 7039khz. So, let this be a lesson... light bulbs do make good rf generators.

Another strange but true story from the Texas countryside.

Mike KE4PC

Mike and gang:

See... like I've always said, it's amazing that this radio stuff works at all! When I hear stories such as this, I find QRP work to be extremely fascinating - just think of all the forces going to work against our tiny, minuscule signals!!

Try explaining radio to a non-radio person... "you see the ionosphere, areas in the Earth's atmosphere charged by the Sun's energy, reflect radio waves just like a mirror reflects your image back to you"... yeah, right! Sounds like something my 3 year old made up while playing with a friend.

Be safe and well, my friends. Happy Holidays and Happy New Year to all.

72/73 de Dave KK5HA
QRP-L#25

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: Aa4xx <aa4xx@nando.net>
Subject: [1748] Re: 40 Meter Beacon
Message-ID: <Pine.SUN.3.91.951222054429.29247A-1000000@parsifal.nando.net>

Hi Gang,

I have been asked to repost this message for those who did not see it the first time:

As many on the list have reported, propagation has been tough on 40 Meters as of late. Let's see what mother nature has in store for us this coming weekend. The 40 meter attended beacon will be running Sunday, Dec. 24 and Monday, Dec. 25 from 1300-2100 Z (8AM-4PM EST) on 7004.0 KHz.

If the WWV indices look anywhere near decent, we'll set the beacon power really low--at 100 microwatts; otherwise, we'll set it at phaser level--250 microwatts. :-)

The beacon string has an embedded 4 letter codeword. Those who successfully copy the codeword will receive a colorful certificate from the North Carolina group as our appreciation for supporting the project.

The beacon string will be as follows:

VVV VVV VVV 100 uW <4 letter codeword) de AA4XX/B

The transmitter will be an FT-757GX, using a CMOS Super Keyer II as the beacon keyer. Several different antennas will be used for multidirectional coverage.

Good luck, and Happy Holidays from the Tar Heel State,

Paul, AA4XX (Raleigh) (919) 779-1637

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: bmitchel@kodak.com (Brad Mitchell)
Subject: [1759] Re: 75 m ssb net
Message-ID: <9512221520.AA17272@howdy2.cba>

There was a few guys on the east coast on monday evenings
I think at 9:30 , at the bottom end of 75 somewhere..

Boy I hate being flakey, but at least some info is here.
Anyway, when I first got my epiphyte on the air, I
and Gary, N2JGU both got on there with them ,and talked.
It was fun, but I haven't used my epiphyte since.. :-(..
73 Brad WB8YGG

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [1747] Re: 75m SSB QRP net
Message-ID: <Pine.LNX.3.91.951221223950.21255G-100000@dt1.datatamers.com>

Larry,
The BC net meets on 3760 +/- at 10pm PST. Usual NCS is Derry, VE7QK. Net is very informal and short (unless something exciting to talk about). Net is every day!
72, Dave, W6EMD

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [1796] Re: 75m SSB QRP net
Message-ID: <Pine.LNX.3.91.951222152850.3153F-100000@dt1.datatamers.com>

Larry & Gang,
I goofed on the time for the net! It should be 10:30pm PST. Sorry about that!
72, Dave, W6EMD

> At 10:43 PM 12/21/95 -0800, you wrote:
> >Larry,
> >The BC net meets on 3760 +/- at 10pm PST. Usual NCS is Derry, VE7QK. Net
> >is very informal and short (unless something exciting to talk about). Net
> >is every day!
> >72, Dave, W6EMD

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [1746] Re: Autek RF Analyst Fix
Message-ID: <Pine.LNX.3.91.951221222710.21255D-100000@dt1.datatamers.com>

Bill,
Mine works fine. I love it!
72, Dave, W6EMD

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Frank G3YCC <frank@yorks.demon.co.uk>
Subject: [1778] Re: CQC & OK QRP club
Message-ID: <sbr4nGA7pa2wEwNs@yorks.demon.co.uk>

In message <19951221072821961.AAA196@dal14.why.net>, ljones
<ljones@why.net> writes
>Greetings Gang...
>
> I am very much interested in becoming a member of the CQC and OK QRP
>groups. If anyone has the snail mail addresses of the groups, please email
>them to me. Thanks...
>
>72/73
>
>dee-it dee-it

>
>Larry n5osg
>
>Larry Jones N50SG <>< NorTex QRP-ARCI G-QRP MI-QRP
>4028 Random Circle NorCal NE-QRP QRP-L NTMS
>Garland Tx 75043-3250
>
>
>
Yes. Here goes:

Chairman and contact person is

Petr Doudera, OK1CZ
U 1.baterie 1,
16200 Praha 6

I do not belong, but I picked up some of their magazines when Petr was
at the Rochdale QRP Convention in 1994.

72/3

--

Frank G3YCC

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: cebik@UTKVX.UTCC.UTK.EDU
Subject: [1782] Re: folded dipole query
Message-ID: <Pine.PMDF.3.91.951222134845.543196901D-100000@utkvx.utk.edu>

On Fri, 22 Dec 1995, Reich, Christopher N wrote:

>
> Does anyone have any experience or thoughts using a non-resonant folded
> dipole with an antenna tuner for multi-band operation? I can't help but
> wonder if the broad-banded characteristics of a resonant folded dipole will
> make the antenna tuner adjustments less "touchy".
> Chris Reich WB2DYJ
>
Chris,

since most of the broadbanding effect of an FD is due to its being a
"fat" wire, the degree of broadbanding a nonresonant antenna to be less
ATU touchy is limited. Most touchy conditions at ATUs are a function of
a high reactance relative to the resistance at the ATU output terminals.
That effect is likely to remain, even with a folded dipole. I'll run a
sample through the modeling machine and see what happens. More later.

-73-

LB, W4RNL

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Frank G3YCC <frank@yorks.demon.co.uk>
Subject: [1776] Re: G QRP Winter Sports
Message-ID: <6TAvUAAU2n2wEw+T@yorks.demon.co.uk>

Hi! I have been asked to put out the 'rules' for this event. First, it is not a contest, just a time set aside after the Christmas festivities when QRPers try to work as many other low power stations as possible. It starts on December 26th and ends on 1st January, every year. The usual QRP frequencies. There is some SSB activity, but the main activity is on the key! Logs of your activity are most welcome. Send any logs to Gerald Clancey G3MCK, 14 Cherry Orchard, Staines, Middlesex TW18 2DF and there is an award (the G4DHF) for the one adjudged to have contributed the most to the event, but I stress it isn't a contest! Just have a normal QSO, no 599 'QRZ types'! If you hear any QRPers from here or better still work us, I am sure we would find it very interesting.

The QRP frquencies are: (for those who may not know!)
1843,3560,7030,10106, 14060, 21060 and 28060 (CW)
3690, 7090, 14285, 21285 and 28360 (SSB)

Power limits are 5 watts CW and 10 watts PEP or less SSB, call CQ QRP.

I remember a few years ago working one US station on FIVE BANDS during thw WS!!! Roll on those sunspots!

I worked another US staion today on 14.062, KK4IP, Victor. Alas, he was QRO, but we had a QSO anyway (my RST was 329 his 579!).

Hope to work you soon on QRP, maybe in the WS - I will be on 14.060 from time to time, i.e when family committments permit.

Have a super holiday...

>From a cold (3C) and snow showered England.

--

Frank G3YCC

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: N5EM@aol.com
Subject: [1799] Re: HF QRP HT's from Japan ???

Message-ID: <951222201719_21949205@emout06.mail.aol.com>

Charles,

There are probably a lot more than I know about, but here is what I do know of.

Tokyo Hi-Power (funny, huh) makes the HT-750, QRP CW/SSB handheld radio. Literally the size of a large 2m handheld (80's vintage) and covers 40, 15 and 6 meters. It is full band, synthesized, LCD display. Very nice rig. Runs about \$650, depending on the Yen that day. WB5IRI reported on his in QST a year or two ago. He backpacks it with Boy Scouts.

Mizuho makes a series of MONO-Banders for most HF bands. I have seen them for 80 to 6 meters. They typically sold for about \$300. They had two VXO crystals inside, covered 30 khz. per crystal and put out about 2 watts like the HF-750. AEA once carried the 10 and 6 meters versions and called them the DX-Handy. These monobanders are around if you hunt diligently and have cash in pocket ready to deal.

There are probably more. They are not imported because of the limited market for expensive QRP rigs in the states. For example, the HT-750, a tri-band radio costs more than the QRP Plus, which covers 160-10 with a general coverage receiver. At approximately 4-5 pounds and a 5 inch cube, it's not very backpackable but you don't have to call Tokyo to get one :-)

The Mizuho rigs are very popular but at \$300 for a monoband rig that covers 30 khz., they are a bit pricy for the QRP market place where \$100 - \$200 kits have the stage.

Would you consider going into the import biz?

72 from Houston and merry Christmas.
Ed Manuel, N5EM

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Scott Rosenfeld NF3I <ham@w3eax.umd.edu>
Subject: [1764] Re: HF Transciever as Test Equipment.
Message-ID: <Pine.3.89.9512221137.B3669-01000000@w3eax.umd.edu>

An Icom 735 or equivalent makes a damn good "IF sniffer" when a short cable is used and placed in the area of another radio's IF.

Lots of other uses, too - a cheap service monitor of sorts.

Scott Rosenfeld NF3I Burtonsville, MD FM19 QRV 40-10/6/2/440
** Yes, you CAN do VHF contests with 25W and omni antennas **
Still stuck at 138 countries confirmed on HF w/dipoles...
72 & 73 from suburban DC 301-549-1022 (h) 301-982-1015 (w)

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: "N100Q Tom R. @ MR01 22-Dec-1995 1225" <randolph@est.ENET.dec.com>
Subject: [1773] re: HF Transciever as Test Equipment.
Message-ID: <9512221729.AA10004@us4rnc.pko.dec.com>

> I am seriously considering buying a good used HF Transceiver for both
> purposes, HAM QRP and Test Equipment. What does ICOM or Kenwood, or ?
> make that has worked well for you folks? A few suggested model numbers
> will be very helpful.

How about Radio Shack?

I bought a DX440 used for \$100. This is my only general-coverage receiver,
and it works quite well to listen to VFOs, BFOs, WWV and such for tuning up.
It has a rudimentary S-meter (LED bar graph), too, but a real one is needed
to make it REALLY useful.

=====
Tom Randolph N100Q NE-QRP 419 QRP-L 87 ARRL randolph@est.enet.dec.com
=====

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: [1765] Re: How many Techs/Novices
Message-ID: <95Dec22.112700est.14493-2+22@hooch.CC.Lehigh.EDU>

> Is there any reason to change how I'm subscribed so my call data is in
> the list? Add me in as a Tech+ (the FCC has the data wrong. with a
> WD5 call there is no way to be anything BUT a tech+. I hope to have it
> be moot by early spring. Advanced here I come!)

Ray & Gang,

If you get a new call either unsubscribe/resubscribe or drop me a note
and I'll change it manually. As far as the license class goes, I just
lookup all the calls using the callsign server.

Ray, I added your callsign to your subscription.

Good luck on the Advanced!

73
Jim N3VXI

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: mack@mails.imed.com
Subject: [1761] Re:Is Canada International
Message-ID: <9511228196.AA819653162@mails.imed.com>

Patrick Taber questioned my characterization of Canada as no longer "International". I guess it is a matter of how you define international: loosely by impediments to movement, or strictly by political boundaries.

Here in Texas we consider Oklahoma, New Mexico, Louisiana, and D.C as international. Most of us are Texans first and US second.

I would suggest that in North America with NAFTA and the way AT&T, MCI, etc treat phones if you dial 1+ it's not international. If you have to dial the international prefix 011 then it's international (but as I said my company doesn't see it that way). They have a similar blurring of the distinction of "international" in Europe these days with the implementation of the EC stuff. What's REALLY international now?

Ray Mack
WD5IFS
mack@mails.imed.com

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Harry_Chase@smtpgw.windata.com (Harry Chase)
Subject: [1767] Re:Is Canada International
Message-ID: <9511228196.AA819659585@smtpgw.windata.com>

If it involves going to/from other planets, its international:)

Harry
WA1VVH

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995

From: davida@utw.com (David A McPhie)
Subject: [1754] Re: QRP Kit
Message-ID: <199512221356.GAA08389@stellar.comnet.com>

At 12:14 AM 12/22/95 EST, T E I X E I R A wrote:

>What would be a good starter QRP kit to build?

>

>Don N6FNL

>

>An ideal kit to start with is the Nor Cal 40a from Wilderness radio. Dave
WA7YCA

>

>

>

>

>

>

> "Practice not-doing,

>

> and everything will fall into place."

>

>

>Lao-tzu

>

>

>

>

>

>

>

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "Reich, Christopher N" <cnr@rfpo2.rfc.comm.harris.com>
Subject: [1766] RE: qrp kits
Message-ID: <30DADF20@smtpgate.rfc.comm.harris.com>

test

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: "Reich, Christopher N" <cnr@rfpo2.rfc.comm.harris.com>
Subject: [1768] RE: qrp kits
Message-ID: <30DAE068@smtpgate.rfc.comm.harris.com>

Gentlemen,

IMO, what the qrp world, and a lot of other sectors of the galaxy need, is a link-coupled balanced antenna tuner. There are no active components, and no similar device is on the market. Reference the link-coupled tuner in the 1991 handbook, the one _without_ the toroidal balun.

Chris Reich WB2DYJ

From: qrp-l

Subject: qrp kits

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995

From: Rick Zabrodski <zabrodsk@med.ucalgary.ca>

Subject: [1791] RE: qrp kits

Message-ID: <Pine.SUN.3.91.951222141140.18521B-100000@ume>

Balanced link tuner is a great idea. Almost too easy to do this.

Try out Charlie "Tuners" or the Fall Sprat Issue's "

"Single Coil Z match". Easy to to build, works with less loss than a T tuner with balun. I have built several. They are more compact than my link coupled traditional tuners (ala handbook) and less complicated to wire up etc.

Dr. Rick Zabrodski BSc, MD, CCFP(E) *

VE6GK

Clinical Assistant Professor *

NorCal 519 ARCI 7650 GQRP 8329

Faculty of Medicine, Univ. of Calgary * "Power is no substitute for skill"

From qrp-l@lehigh.edu Fri Dec 22 21:14:21 1995

From: burdick@interval.com (Wayne Burdick)

Subject: [1795] Re: QRP kits; UNBIASED, complete summary needed

Message-ID: <v02130507ad00e1f5e19b@[199.170.106.28]>

A few postings on QRP-L lately have dealt with variations on the question, "what QRP rig/kit should I buy?"

There are web sites with much info on particular rigs, magazine articles that review one, two, or three rigs, etc. But is there a comprehensive summary/comparison of ALL the kits AND all popular used/new/classic commercial QRP rigs out there somewhere? This would be very helpful, especially for those who are new to QRP.

If this summary doesn't exist, I'd bet that someone--someone with absolutely no stake in a particular manufacturer or design--could be found

here on planet QRP-L who would be ideally suited to the task. Information could be gathered from all of the members of QRP-L and then summarized in a form that would help people do comparison shopping. Whoever does the information gathering should try to weed out the "plugs" from the "opinions," and the anecdotes from the facts.

There are a zillion rigs that should be included in this massive comparison. I'll bet there are people on the list who have used nearly all of them, too! Chuck Adams, Rob Capon, Jeff Gold, and others come to mind.

For each rig, the comparison might include:

- * an "executive summary" sometimes called "the bottom line"; a one-liner summarizing the overall best features of this rig vs. others;
- * a "level of experience required" column (better name needed for this);
- * standard stats and measurements like power output, current drain on receive and transmit, size, weight, frequency range of the VFO, bands covered, etc.;
- * a checklist showing whether the rig has certain modes and features, e.g. CW only, SSB, RIT, full QSK, AGC, internal keyer socket, frequency display;
- * a list of any special features, e.g. very small size (like the 40-40), no-wires construction (like the Wilderness rigs), thumb-wheel setting of the frequency (ARK rigs), heavy-duty construction/high reliability (OHR 4-bander), etc.
- * available accessories (keyer, antenna tuner, frequency counter, wattmeter, battery pack, carrying case--you get the idea).

A yearly rating of "QRP-L Rig of the Year" would add some spice to it. There could also be a numeric rating system for specific categories, like best manual, most efficient use of battery power, most reliable, easiest to repair, etc.

Given the nature of the Web, this list could be maintained indefinitely, and posted to the list quarterly for the benefit of those who don't have Web access.

It's a big project for someone; I'd like to do it but I have to disqualify myself since I designed some of the rigs.

So, any volunteers? And heck, if this has already been done then by all means send me the URL!

73,
Wayne
N6KR

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: JEVERHART@cayman.vf.mmc.com
Subject: [1780] Re: QRP SKN Nite, Dec 31
Message-ID: <951222131703.2323b510@carib.vf.mmc.com>

Paul,

SKN sounds like a very good idea for those of us too old to drink in the New Year :-). Too much of that would ruin your fist anyway. Not to mention your liver.... CU there

BTW, are you starting a new list?

You ended with:

> QRP-L #38 CQC #133 VISA PIN# 4212
 ^^^^^^^^^^^^^^^^^^

If enough guys share their PINs we can probably afford all those neat kits and QRP+'es etc. You ain't getting mine though!

72/73,

Joe E., N2CX

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: faunt@netcom.com (Doug Faunt N6TQS +1-510-655-8604)
Subject: [1781] Re: [1392] St. Louis Tuner
Message-ID: <199512221821.KAA14457@netcom4.netcom.com>

Could someone clarify this? QRPp makes no mention of the St. Louis Tuner available in the NC-40 sized case, although this article (1392) says, apparently knowledgeably, that it is available in this case size.
73, doug

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: aa7qy@primenet.com (Roger Hightower)
Subject: [1786] Re: [1392] St. Louis Tuner
Message-ID: <199512221923.MAA25001@usr4.primenet.com>

At 10:21 AM 12/22/95 -0800, Doug Faunt N6TQS +1-510-655-8604 wrote:
>Could someone clarify this? QRPp makes no mention of the St. Louis
>Tuner available in the NC-40 sized case, although this article (1392)
>says, apparently knowledgeably, that it is available in this case size.
>73, doug
>
>
I was quoting from the article in WorldRadio by Richard, KI6SN on the
case. Haven't rec'd my QRPp yet, so there may have been a change.
Sorry if there was an error.

73, de Roger

--

Roger Hightower, AA7QY Mesa, AZ (DM43CJ) aa7qy@primenet.com
QRP-L #62 NE-QRP 383 NorCal 1099 CQC 176 QRP-ARCI 8946 G-QRP 9081

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: [1793] Re: [1392] St. Louis Tuner
Message-ID: <19951222149.0AA05495@zia.aoc.nrao.edu>

My QRPp page 66 says:
"Cost of the complete kit contains wire, case (matches the Sierra
and Cascade), knobs, switches ... " (etc.).

I see no reference to a NorCal 40 case as an option. I do remember seeing
a post several months ago where the NorCal 40 style case was being
contemplated, or perhaps that's how the original St. Louis folks did it.
But with the more substantial open-air tuning caps and more connector
options, it evidently seemed prudent to go to the Sierra type case.

I've got more antenna tuners than I need. But hopefully some kind soul
will give a full report when he/she gets their St. Louis tuner in the
mail. It does sound like a nice design.

May your holidays tune up 1:1
Paul NA5N

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: Dan Halbert <halbert@labs-n.bbn.com>
Subject: [1751] Re: [1739] Antenna Tuner Parts Sourcing
Message-ID: <199512221300.IAA01137@halite.bbn.com>

Right, so now I need to put it all into a box. I've got everything I need except one thing: a 2 (or more) digit turns counter/winding mechanism for the roller inductor.

Do any of you have an old unused one I could buy? Any ideas for "homebrewing" one?

I've seen short articles suggesting the use of a turns counter from an old tape recorder and some kind of belt drive.

Dan, KB1RT

From qrp-1@lehigh.edu Fri Dec 22 21:14:21 1995
From: cebik@UTKVVX.UTCC.UTK.EDU
Subject: [1755] Re: [1739] Antenna Tuner Parts Sourcing
Message-ID: <Pine.PMDF.3.91.951222093826.543203954A-100000@utkvx.utk.edu>

On Fri, 22 Dec 1995, Dan Halbert wrote:

> Right, so now I need to put it all into a box. I've got everything I
> need except one thing: a 2 (or more) digit turns counter/winding
> mechanism for the roller inductor.
>
> Do any of you have an old unused one I could buy? Any ideas for
> "homebrewing" one?
>
> I've seen short articles suggesting the use of a turns counter from an old
> tape recorder and some kind of belt drive.
>
> Dan, KB1RT

An alternative is to make a "window" or "slot" in the case so that you can see the turns and the roller. Then you can count two things: the turns of the coil and the money saved. As Doug DeMaw has pointed out, unless there is some very bad construction that creates point contacts and other harmonic generating "devices," an ATU does not require a shielded case. Plexiglas is fine, but if your hands come near the components while tuning, a metal front panel may be useful.

-73-

LB, W4RNL